

CLAIMS

What is claimed is:

1. A thermal dissipation system, comprising:
a plurality of thermal members having surfaces adapted for transferring heat from heat generating elements;
a heat sink; and
a plurality of heat pipes, each of the heat pipes coupled between a respective one of said plurality of thermal members and said heat sink, wherein said plurality of heat pipes possess a sufficient amount of flexibility to enable each of said plurality of thermal members to be disposed over a range of positions relative to said heat sink.
2. The thermal dissipation system of claim 1 wherein each of said plurality of heat pipes comprises a respective bend to provide said sufficient amount of flexibility.
3. The thermal dissipation system of claim 1 wherein each of said plurality of thermal members are disposed at different lengths defined by terminal ends of said plurality of heat pipes.
4. The thermal dissipation system of claim 1 wherein said heat sink is a finned heat sink.
5. The thermal dissipation system of claim 1 further comprising:
a fan disposed proximate to said heat sink.
6. The thermal dissipation system of claim 1 further comprising:
a refrigeration-based unit adapted to sub-cool said heat sink.

7. A method of assembling a heat dissipating system, comprising:
providing a heat sink;
thermally coupling a plurality of heat pipes to said heat sink;
thermally and mechanically coupling a respective thermal member to each of said plurality of heat pipes, wherein said plurality of heat pipes possess sufficient flexibility to enable said thermal members to be positioned through a range of positions relative to said heat sink; and
thermally coupling heat generating elements to said thermal members.
8. The method of claim 7 wherein said heat generating elements include a processor.
9. The method of claim 7 further comprising:
thermally coupling a power supply to said heat sink.
10. The method of claim 7 wherein each of said plurality of heat pipes possess a bend to provide said sufficient flexibility.
11. The method of claim 7 wherein said heat sink possesses a plurality of finned elements.
12. The method of claim 7 further comprising:
disposing a fan unit proximate to said heat sink.
13. The method of claim 7 further comprising:
providing a refrigeration-based unit to sub-cool said heat sink.

14. A system for dissipating heat, comprising:
means for dissipating heat;
a plurality of means for transferring heat, by phase-changing an evaporate, that possess positioning tolerance; and
a plurality of means for receiving heat generating elements over a range of positions relative to said means for dissipating, wherein each of said plurality of means for receiving is coupled to a respective one of said plurality of means for transferring.
15. The system of claim 14 further comprising:
means for processing data coupled to one of said means for receiving.
16. The system of claim 14 further comprising:
means for supplying power coupled to said means for dissipating.
17. The system of claim 14 wherein said means for dissipating possesses a plurality of fin elements.
18. The system of claim 14 further comprising:
a fluid displacement means coupled to said means for dissipating.
19. The system of claim 14 wherein each of said plurality of means for receiving is disposed at differing lengths as defined by terminal ends of said plurality of means for transferring.
20. The system of claim 14 wherein said plurality of means for receiving thermally contact heat generating elements located on respective electronic cards.

21. A processor package assembly, comprising:
 - a first packing layer comprising a plurality of heat generating logic circuits;
 - a second packaging layer comprising a power supply unit for supplying power to said plurality of heat generating logic circuits;
 - a plurality of thermal members thermally coupled to said plurality of heat generating logic circuits;
 - a plurality of heat pipes thermally coupled to said thermal members extending from said plurality of thermal members in a lateral direction relative to said first and second packaging layers; and
 - a heat sink thermally coupled to said plurality of heat pipes and to said power supply unit, wherein said plurality of heat pipes possess positioning flexibility through a range of positions relative to said heat sink.
22. The processor package assembly of claim 21 wherein said plurality of heat generating logic circuits comprise a plurality of processors.
23. The processor package assembly of claim 21 wherein said plurality of heat generating logic circuits comprise a cache memory application specific integrated circuit (ASIC).
24. The processor package assembly of claim 21 wherein at least a subset of said plurality of heat generating logic circuits possess differing vertical profiles relative to said first packaging layer.